Two-stage MASTER CYLINDER

Service Instructions

DISASSEMBLY

1. Remove the master cylinder from vehicle. Do not attempt to repair the master cylinder while it is installed on the vehicle.
2. Place master cylinder in a vise, in horizontal position.
3. Remove the reservoir cover or cover plug.
4. Remove the relief valve by turning it counter-clockwise. The relief valve cylinder is slotted on the top edge to fit a wide screwdriver
5. Remove the large end plug (1 1/4 inch hex).

⚠ CAUTION

This plug is under spring tension, use caution when removing plug. The high pressure piston, the end plug gasket, and check valve assembly should “pop” out on the release of the end plug. If all parts do not come out upon removal of the end plug, pry outside gasket from threads with a screwdriver.

6. The low pressure piston may be removed by pushing the piston through the cylinder from the push-rod end.

ASSEMBLY

⚠ CAUTION

To prevent damaging cups, be sure to lubricate the high pressure, low pressure and secondary cups with the same fluid as used in the system BEFORE assembling.

1. Place the master cylinder in horizontal position in a vise.
2. Replace the low pressure piston.
3. Replace first the small and then the large return springs.
4. Insert the inside end plug gasket.
5. In order to properly assemble the remainder of the master cylinder, it is necessary to push the low pressure piston forward about 1 1/2 inches from the push-rod end with a rod or screwdriver and to hold the piston in this position until the high pressure piston has been installed.
6. While holding the low pressure piston in position, enter high pressure cup into the low pressure piston. At this time force the piston into the cylinder so that the base of the high pressure piston seats on the inside gasket. This operation will have to be performed under spring pressure because it is necessary to hold the low pressure piston forward in order to insure proper entry of the cup.
7. Release the pressure of the screwdriver or rod against the push-rod end and at the same time apply enough pressure against the base of the high pressure piston so as to prevent the high pressure cup from coming out of the high pressure cylinder.
8. Insert a rod or screwdriver into the relief valve opening and pry it sideways against the high pressure piston with enough force to prevent the assembled parts from moving out of position.
9. While holding the parts in position with the rod or screwdriver, replace the outside gasket and rubber seal. Place the retarding valve assembly into the end plug and screw the end plug tightly into the brake cylinder.

⚠ WARNING

It is important that the end plug be drawn in tightly. We recommend two procedures for tightening the end plug: (1) For master cylinders with aluminum end plug gaskets use a heavy wrench so that it may be struck with a hammer in order to properly tighten the end plug. (2) For master cylinders with end plug o-rings torque to 35 ft·lbs. Check master cylinder for external leaks after installation and bleeding of unit.

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⚠ CAUTION

In order to properly assemble the remainder of the cylinder, it is necessary to push the low pressure piston forward about 1 1/2 inches from the push-rod end with a rod or screwdriver and to hold the piston in this position until the high pressure piston has been installed.